



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street

San Francisco, CA 94105-3901

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December 19, 2001

Ellen Garvey
Air Pollution Control Officer
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Re: Preliminary Determination of Compliance for the Russell City Energy Center (#2896)


Dear Ms. Garvey:

I am writing to you in reference to the District's preliminary Determination of Compliance for the Russell City Energy Center (RCEC), a proposed 600 MW combined cycle combustion turbine electricity generation facility. EPA is concerned about the proposed Best Available Control Technology (BACT) determinations for oxides of nitrogen (NO_x) and carbon monoxide (CO). We are also concerned that the proposed offset package may not be surplus, since the precursor organic compound (POC) emission reduction credits (ERCs) are pre-1990 reductions, and both the POC and NO_x ERCs do not appear to be adjusted to reflect current federal requirements. Our concerns are explained in detail in the enclosure.

Additionally, under federal PSD delegation requirements, EPA retains responsibility to ensure compliance with Section 7 of the Endangered Species Act (ESA). We have been in contact with the U.S. Army Corp of Engineers and the U.S. Fish and Wildlife Service (FWS) concerning our role as lead federal agency in the ESA consultation process. Therefore, the final PSD permit shall not be issued until this office has notified the District that the ESA process, including consultation with FWS, is complete.

We look forward to working with you to address our comments on the proposed BACT determinations prior to the issuance of the final Determination of Compliance. Please contact Todd Marse of my staff at (415) 972-3976 if you have any questions.

Sincerely,


for Gerardo C. Rios
Chief, Permits Office

Enclosure

cc: James R. Leahy, Russell City Energy Center
Kae Lewis, California Energy Commission
Mike Tollstrup, California Air Resources Board
Jan C. Knight, U.S. Fish and Wildlife Service

U.S. EPA Comments on RCEC Preliminary Determination of Compliance

1. Best Available Control Technology (BACT) for Nitrogen Oxides (NO_x)

The District has proposed a BACT rate of 2.5 ppm averaged over one-hour, rather than 2.0 ppm averaged over one-hour. EPA requests that prior to issuing the permit, the District evaluate NO_x BACT of no more than 2.0 ppmvd, corrected to 15 percent O₂, averaged over one-hour. Recently, several non-attainment area NSR permits were issued for combined cycle gas fired turbines capable of achieving a NO_x emission rate of 2.0 ppm, corrected to 15 percent O₂, averaged over one-hour (Lowest Achievable Emission Rate, LAER). [Refer to Massachusetts Department of Environmental Protection (MDEP)/Region 1 PSD permits.] Your analysis should include a discussion of these (and other) permitting actions which required the lower NO_x emission rate.

2. BACT for Carbon Monoxide (CO)

As indicated in the PDOC, "The gas turbines and HRSG duct burners each trigger BACT for CO emissions...Furthermore, the HRSGs and (sic) will be designed and constructed such that an oxidation catalyst can be readily installed if necessary to achieve compliance with CO emission limitations. The gas turbine and HRSG duct burner combined exhaust will achieve a CO emission limit of 6 ppmvd @ 15% O₂" (p. 7, PDOC, 11/19/01). Recent CO BACT analyses in EPA Region 1 identify CO oxidation catalysts and SCONOX as technically feasible control technologies that could attain up to 90% removal efficiency, and would be capable of achieving a CO emission rate of 2.0 ppmvd, corrected to 15 percent O₂, averaged over one-hour. (Refer to MDEP Permits.) As such, the two options should be considered the top-ranking alternatives and equal in control effectiveness.

Therefore, EPA requests that the District consider a BACT limit of 2.0 ppmvd CO, corrected to 15 percent O₂, averaged over one-hour. An oxidation catalyst typically can achieve this CO emission rate and would also reduce POC and hazardous air pollutant (HAP) emissions, effectively mitigating residual toxic risk impacts to human health and nearby endangered species. (See Section 4 on endangered species.) Of course, with any BACT analysis, please include a discussion on each technologies' energy, environmental, and economic impacts.

3. Proposed offsets for Precursor Organic Compounds (POCs)

The certification date of the emission reduction credits (ERCs) proposed to offset the project's 28.5 tons/yr of POC emissions pre-date the 1990 amendments to the Clean Air Act (CAA). Therefore, if the proposed ERCs are not explicitly included in the District's EPA-approved ozone attainment plan emissions inventory as existing emissions or future emissions growth, the inventory must be amended before the District may grant the PSD permit. EPA is concerned that the District has not accounted for the pre-1990 shutdown credits in the current approved plan as new source growth. We are also concerned that the ERCs have not been incorporated in any modeling exercise used to demonstrate attainment. As you may know, EPA

has been working with CARB, BAAQMD, and other non-attainment area Districts in California on how districts must account for pre-1990 ERC before they can be used.

Please be reminded that any ERCs submitted for offsetting purposes must be surplus from CAA requirements at the time of use. Consequently, EPA requests that an analysis be included in the final DOC that demonstrates the credibility of the proposed ERCs.

4. Endangered Species

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 C.F.R. Part 402, EPA is required to ensure that any action authorized, funded, or carried out by EPA is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of such species' designated critical habitat. EPA has determined that this delegated PSD permitting action triggers ESA Section 7 consultation requirements. EPA is therefore required to consult with the U.S. Fish and Wildlife Service (FWS) and/or the National Marine Fisheries Service (NMFS) if an endangered species or threatened species may be present in the area affected by the permit project and EPA's action (i.e., permit issuance) may affect such species. EPA is also required to confer with the Services on any action which is likely to jeopardize the continued existence of any species proposed for listing (as endangered or threatened) or result in the destruction or adverse modification of habitat proposed to be designated as critical for such species.

The District may proceed with final PSD permit issuance upon conclusion of ESA consultation, EPA review of FWS's Biological Opinion, and our determination that issuance of the PSD permit will be consistent with the ESA requirements.